Sheet 1 of 6

| | | | | | | | |
|---|----|--|------------|---|-------|---|-------------|
| Form PTO-1449 (Substitute) | | U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE | | Attorney Docket Number LAZE-01011US1 | | Serial/Patent Number 10/684,883 | |
| Information Disclosure Statement BY APPLICANT (Use several sheets if necessary) | | | | Applicant/Patent Owner Thomas F. Rust | | | |
| | | | | Filing/Issue Date 10/14/2003 | | Group Art Unit 2655 | |
| U.S. PATENTS | | | | | | | |
| Examiner Initial | | Patent Number | Issue Date | First Named Inventor | Class | Subclass | Filing Date |
| <i>ap</i> | 1 | 4,340,953 | 07/20/82 | Iwamura et al. | 369 | 126 | 05/07/80 |
| | 2 | 4,575,822 | 03/11/86 | Quate | 365 | 174 | 02/15/83 |
| | 3 | 4,829,507 | 05/09/89 | Kazan et al. | 369 | 126 | 08/15/88 |
| | 4 | 4,831,614 | 05/16/89 | Duerig et al. | 369 | 101 | 03/13/87 |
| | 5 | 4,916,688 | 04/10/90 | Foster et al. | 369 | 126 | 03/31/88 |
| | 6 | 4,945,515 | 07/31/90 | Ooumi et al. | 365 | 174 | 09/12/88 |
| | 7 | 4,962,480 | 10/09/90 | Ooumi et al. | 365 | 151 | 09/12/88 |
| | 8 | 4,987,312 | 01/22/91 | Eigler | 250 | 492.3 | 11/07/89 |
| | 9 | 5,038,322 | 08/06/91 | Van Loenen | 365 | 114 | 02/03/89 |
| | 10 | 5,043,578 | 08/27/91 | Guethner et al. | 250 | 307 | 04/05/90 |
| | 11 | 5,051,977 | 09/24/91 | Goldberg | 369 | 126 | 08/30/89 |
| | 12 | 5,091,880 | 02/25/92 | Isono et al. | 365 | 151 | 01/29/90 |
| | 13 | 5,095,479 | 03/10/92 | Harigaya et al. | 369 | 288 | 08/12/91 |
| | 14 | 5,097,443 | 03/17/92 | Kaneko et al. | 365 | 153 | 03/28/90 |
| | 15 | 5,144,148 | 09/01/92 | Eigler | 250 | 492.3 | 08/07/90 |
| | 16 | 5,187,367 | 02/16/93 | Miyazaki et al. | 250 | 306 | 08/08/91 |
| | 17 | 5,216,631 | 06/01/93 | Sliwa, Jr. | 365 | 174 | 11/02/90 |
| | 18 | 5,251,200 | 10/05/93 | Hatanaka et al. | 369 | 126 | 09/11/91 |
| | 19 | 5,260,567 | 11/09/93 | Kuroda et al. | 250 | 227.19 | 04/08/92 |
| | 20 | 5,262,981 | 11/16/93 | Rabe et al. | 365 | 120 | 07/01/91 |
| | 21 | 5,265,046 | 11/23/93 | Fuchs et al. | 365 | 151 | 12/30/91 |
| <i>ap</i> | 22 | 5,289,455 | 02/22/94 | Kuroda et al. | 369 | 126 | 07/23/91 |

BEST AVAILABLE COPY



Sheet 2 of 6

BEST AVAILABLE COPY

| U.S. PATENTS | | | | | | | |
|------------------|----|---------------|------------|----------------------|-------|----------|-------------|
| Examiner Initial | | Patent Number | Issue Date | First Named Inventor | Class | Subclass | Filing Date |
| ap | 23 | 5,307,311 | 04/26/94 | Sliwa, Jr. | 365 | 174 | 02/09/93 |
| | 24 | 5,323,375 | 06/21/94 | Ihara et al. | 369 | 126 | 03/09/92 |
| | 25 | 5,335,197 | 08/02/94 | Kaneko et al. | 365 | 153 | 12/10/91 |
| | 26 | 5,389,475 | 02/14/95 | Yanagisawa et al. | 430 | 019 | 06/18/92 |
| | 27 | 5,412,597 | 5/02/95 | Miyazaki et al. | 365 | 174 | 10/15/93 |
| | 28 | 5,446,684 | 08/29/95 | Kaneko et al. | 365 | 046 | 05/10/94 |
| | 29 | 5,453,970 | 09/26/95 | Rust et al. | 369 | 176 | 07/13/93 |
| | 30 | 5,471,064 | 11/28/95 | Koyanagi et al. | 250 | 452.2 | 09/14/93 |
| | 31 | 5,471,458 | 11/28/95 | Oguchi et al. | 369 | 126 | 09/08/93 |
| | 32 | 5,557,596 | 09/17/96 | Gibson et al. | 369 | 101 | 07/12/95 |
| | 33 | 5,606,162 | 02/25/97 | Buser et al. | 250 | 306 | 07/01/96 |
| | 34 | 5,751,685 | 05/12/98 | Yi | 369 | 126 | 05/10/96 |
| | 35 | 5,778,134 | 07/07/98 | Sakai et al. | 386 | 046 | 09/03/96 |
| | 36 | 5,804,710 | 09/08/98 | Mamin et al. | 073 | 105 | 06/05/97 |
| | 37 | 5,808,973 | 09/15/98 | Tanaka | 369 | 14 | 09/06/96 |
| | 38 | 5,822,285 | 10/13/98 | Rugar et al. | 369 | 44.26 | 03/31/97 |
| | 39 | 5,835,477 | 11/10/98 | Binning et al. | 369 | 126 | 07/10/96 |
| | 40 | 5,848,077 | 12/08/98 | Kamae et al. | 371 | 053 | 12/08/95 |
| | 41 | 5,856,967 | 01/05/99 | Mamin et al. | 369 | 126 | 08/27/97 |
| | 42 | 5,929,438 | 07/27/99 | Suzuki et al. | 250 | 306 | 01/16/97 |
| | 43 | 5,953,306 | 09/14/99 | Yi | 369 | 126 | 04/25/97 |
| | 44 | 6,001,519 | 12/14/99 | Yang et al. | 430 | 020 | 07/02/98 |
| | 45 | 6,027,951 | 02/22/2000 | MacDonald et al. | 438 | 020 | 08/18/98 |
| | 46 | 6,038,916 | 03/21/00 | Cleveland et al. | 073 | 105 | 07/22/97 |
| | 47 | 6,196,061 | 03/06/2001 | Adderton et al. | 073 | 105 | 11/05/98 |
| | 48 | 6,275,410 B1 | 08/14/2001 | Morford | 365 | 151 | 11/09/2000 |
| ap | 49 | 6,339,217 | 01/15/2002 | Kley | 250 | 216 | 07/28/95 |



Sheet 3 of 6

BEST AVAILABLE COPY

| U.S. PATENTS | | | | | | | |
|------------------|----|---------------|------------|----------------------|-------|----------|-------------|
| Examiner Initial | | Patent Number | Issue Date | First Named Inventor | Class | Subclass | Filing Date |
| ap | 50 | 6,507,552 B2 | 01/14/2003 | Gibson | 369 | 126 | 12/01/2000 |
| ap | 51 | 6,522,566 B2 | 02/18/2003 | Carter | 365 | 118 | 12/01/2000 |
| ap | 52 | 6,542,400 B2 | 04/01/2003 | Chen et al. | 365 | 151 | 03/27/2001 |
| | | | | | | | |

| U.S. PATENT PUBLICATIONS | | | | |
|--------------------------|----|---------------------------------------|------------------|------------|
| Examiner Initial | | Patent Application Publication Number | Publication Date | Applicant |
| ap | 53 | US 2002/0110074 A1 | 08/15/2002 | Gibson |
| | 54 | US 2002/0135917 A1 | 09/26/2002 | Davidson |
| | 55 | US 2003/0007443 A1 | 01/09/2003 | Nickel |
| | 56 | US 2003/0081532 A1 | 05/01/2003 | Gibson |
| | 57 | US 2003/0185139 A1 | 10/02/2003 | Ives |
| ap | 58 | US 2003/0189200 A1 | 10/09/2003 | Lee et al. |
| | | | | |

| PENDING U.S. PATENT APPLICATIONS | | | | | |
|----------------------------------|--|--------------------|-------------|----------------------|----------------------------------|
| Examiner Initial | | Application Number | Filing Date | First Named Inventor | Petition to Expunge? Yes No |
| | | | | | |

| FOREIGN PATENT DOCUMENTS | | | | | | | | |
|--------------------------|----|-----------------|------------------|---------|-------|----------|------------------|----|
| Examiner Initial | | Document Number | Publication Date | Country | Class | Subclass | Trans- lation | |
| ap | 59 | WO 96/11472 | 04/18/96 | PCT | | | Yes | No |
| | 60 | JP3295043 | 12/26/91 | JAPAN | | | X | |
| | 61 | JP3295044 | 12/26/91 | JAPAN | | | X | |
| ap | 62 | JP4159636 | 06/02/92 | JAPAN | | | X | |
| | | | | | | | | |



| OTHER DOCUMENTS (Include author (if any), title, publisher and place of publication, date and pertinent pages) | | |
|--|--|----|
| 63 | BO HONG, <i>Exploring the Usage of MEMS-based Storage as Metadata Storage and Disk Cache in Storage Hierarchy</i> , Storage Systems Research Center, Jack Baskin School of Engineering, University of California at Santa Cruz http://www.cse.ucsc.edu/~hongbo/publications/mems-metadata.pdf | ap |
| 64 | SUMIO HOSAKA, HAJIME KOYANAGI AND ATSUSHI KIKUKAWA, Nanometer Recording on Graphite and Si Substrate Using an Atomic Force Microscope in Air, Japan Journal of Applied Physics, Volume 32 (1993) pp. L464-467, Part 2, No. 3B, March 15, 1993, Central Research Laboratory, Hitachi Limited, Kokubunji, Tokyo 185 | |
| 65 | ATSUSHI KIKUKAWA, SUMIO HOSAKA, YUKIO HONDA ¹ and RYO IMURA, Phase-Controlled Scanning Force Microscope, Japanese Journal of Applied Physics, Volume 33 (1994) pp. L1286-L1288, Part 2, No. 9A, September 1, 1994, Advanced Research Laboratory, Hitachi Limited, 1-280 Higashi-koigakubo, Kokubunji-shi, Tokyo 185, ¹ Central Research Laboratory, Hitachi Limited, 1-280 Higashi-koigakubo, Kokubunji-shi, Tokyo 185 | |
| 66 | WILLIAM P. KING, DANIEL A. FLETCHER and Y. SUNGTAEK JU, Nanometer-Scale Thermal Processing for Advanced Manufacturing (YIP '96), Office of Naval Research Annual Grant Report, First Annual Report: May 1, 1996 - April 30, 1997, pp. 1 - 8 | |
| 67 | T. C. REILEY, T.R. ALBRECHT, D. W. ALBRECHT, K. KUROKI and M. AOYAGI, A Micro Hard Disk Drive, I.B. M. - Almaden Research Center, I.B.M. Storage System Division, Electrochemical Society Proceeding, Volume 98-20, pp. 10 - 18 | |
| 68 | SEIJI HEIKI, YASUO WADA and TOMIHIRO HASHIZUME, Correlation Between Tip-Apex Shape and Surface Modification by Scanning Tunneling Microscopy, Journal of Applied Physics, Vol. 86, No. 8, pp. 4220 - 4224 | |
| 69 | MICHAEL BROOKS, Hole in One, New Scientist, March 27, 1999, pp. 46 - 48 | |
| 70 | H. JONATHON MAMIN, ROBERT P. RIED, BRUCE D. TERRIS and DANIEL RUGAR, High-Density Data Storage Based on the Atomic Force Microscope, Proceeding of the IEEE, Volume 87, No. 6, June 1999, pp. 1014 - 1027 | |
| 71 | STEVEN W. SCHLOSSER, JOHN LINWOOD GRIFFIN, DAVID F. NAGLE, AND GREGORY R. GANER, Filling the Memory Access Gap: A Case for On-Chip Magnetic Storage, School of Computer Science, Carnegie Mellon University, November 1999 | |
| 72 | STEVEN W. SCHLOSSER, JOHN LINWOOD GRIFFIN, DAVID F. NAGLE and GREGORY R. GANGER, Carnegie Mellon University, Designing Computer Systems with MEMS-Based Storage, 8 th International Conference on Architectural Support for Programming Languages and Operating Systems, 2000 | |
| 73 | S. HOSAKA, K. ETOH, A. KIKUKAWA AND H. KOYANAGI, Megahertz Silicon Atomic Force Microscopy (AFM) Cantilever and High-Speed Readout in AFM-Based Recording, Journal of Vacuum Science Technology, Vol 18, No. 1, January/February 2000, pp. 94 - 99 | |
| 74 | ROBERT P. RIED, Air-Bearing Sliders and Plane-Plane-Concave Tips for Atomic Force Microscope Cantilevers, Journal of Microelectromechanical Systems, Volume 9, No. 1, March 2000, pp. 52 - 57 | |
| 75 | L. RICHARD CARLEY, GREGORY R. GANGER and DAVID F. NAGLE, Mems-Based Integrated-Circuit Mass-Storage Systems, Communications of the ACM, Volume 43, No., 11, November 2000, pp. 73 - 80 | |
| 76 | P. VETTIGER, M. DESPONT, U. DRECHSLER, U. DURIG, W. HABERLE, M. I. LUTWYCHE, H.E. ROTHUIZEN, R. STUTZ, R. WIDMER AND G. K. BINNIG, The "Millipede" - More than one thousand tips for future AFM data storage, I.B.M. J. Res. Develop., Volume 44, No. 3, May 2000, pp. 323 - 340 | ap |

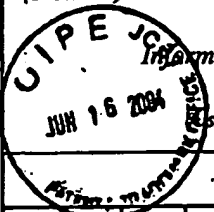


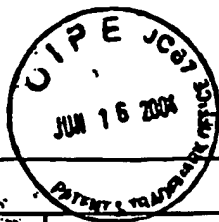
BEST AVAILABLE COPY

| OTHER DOCUMENTS (Include author (if any), title, publisher and place of publication, date and pertinent pages) | | |
|--|----|--|
| ap | 77 | R. B. ZMOOD, L. QIN, D. K. SOOD, T. VINAY and D. MEYRICK, School of Electrical and Computer System Engineering, Royal Melbourne Institute of Technology, Melbourne, Victoria 3000, Australia, Magnetic MEMS Used in Smart Structures Which Exploit Magnetic Materials Properties, Smart Structures and Devices, Proceeding of the SPIE, Volume 4235, 2001, pp. 173 - 187 |
| | 78 | MICHAEL GROSS, Small is Great!, New Scientist, July 14, 2001, pp. 1 - 4 |
| | 79 | G. CHERUBINI, T. ANTONAKOPOULOS, P. BACHTOLD, G. K. BINNIG, M. DESPONT, U. DRECHSLER, A. DHOLAKIA, U. DURIG, E. ELEFThERIOU, B. GOTSMANN, W. HABERLE, M. A. LANTZ, T. LOELIGER, H. POZIDIS, H. E. ROTHUIZEN, R. STUTZ AND P. VETTIGER, I.B.M. Research, Zurich Research Laboratory, The Millipede, a Very Dense, Highly Parallel Scanning-Probe Data-Storage System, ESSCIRC 2002, pp. 121 - 125 |
| | 80 | E. ELEFThERIOU, G. CHERUBINI, H. POZIDIS, H. E. ROTHUIZEN AND P. VETTIGER, Millipede - a MEMS-Based Scanning-Probe Data-Storage System, APMRC 2002, pp. 1 - 8 |
| | 81 | SATOSHI KAWAMURA, Electronics Device Division, Hitachi Maxell, Limited, Coil on Chip RFID System by Super EF2 Technology, Nippon Oyo Jiki Gakkai Kenkyukai Shiryo, Vol. 123, pp. 21 - 25 |
| | 82 | Molecular Chip Patent, Poptronics, Vol. 3, No. 5, May 2002, pp. 11 - 12 |
| | 83 | KENNETH J. KORANE, A King-Size Future for Nanosize Machines, Machine Design Vol 74, No. 18, September 19, 2002, pp. 88 - 94 |
| | 84 | PETER VETTIGER AND GERD BINNIG, The Nanodrive Project: Inventing a Nanotechnology Device for Mass Production and Consumer Use is Trickier than it Sounds, Scientific American, Vol. 288, No. 1, 2002, pp. 47 - 53 |
| | 85 | MUSTAFA UYSAL, ARIF MERCHANT, GUILLERMO A. ALVAREZ, Hewlett Packard Laboratories, Using MEMs-Based Storage in Disk Arrays, Proceedings of FAST '03: 2 nd USENIX Conference on File and Storage Technologies, USENIX Association, pp. 89 - 101 |
| | 86 | KIYOSHI, T., ET AL., "Switching and memory phenomenon in Langmuir-Blodgett film using a scanning tunneling microscope," Canon, Inc., IEIC Technical Report (1994), Vol. 93, No. 524 (OME93 54-59), pp. 7012, Fig. 6, Ref. 15. |
| | 87 | KIYOSHI T. ET AL., Application and Progress in the Scanning Probe Microscopy, High Density Information Storage Using Langmuir-Blodgett Film and Atomic Force Microscopy," Canon, Inc., Journal of the Surface Science Society of Japan (1997), Vol. 18, No. 4, pp. 213-218, Fig. 7, Ref. 14. |
| | 88 | KADO, H. and TOHDA, T., "Nanometer-scale recording on chalcogenide films with an atomic force microscope," Appl. Phys/ Lett., Vol. 66, No. 22, 29 May 1995, pp. 2961-2962. |
| | 89 | YANO, K., ET AL., "Nanometer scale conductance change in a Langmuir-Blodgett film with the atomic force microscope," Appl. Phys. Lett., Vol. 68, Vol. 2, 8 January 1996, pp. 188-190. |
| | 90 | YANO, K. and IKEDA, T., "Stable bit formation in polyimide Langmuir-Blodgett film using an atomic force microscope," Appl. Phys. Lett., Vol. 80, Vol. 6, 11 February 2002, pp. 1067-1069. |
| | 91 | BARRETT, R.C. and QUATE, C.F., "Large-scale charge storage by scanning capacitance microscopy," Ultramicroscopy 42-44 (1992) pp. 262-267. |
| | 92 | GARDNER, E., "AFM Fabricates a Tiny Transistor," Science, Vol. 266, 28 October 1994, p. 543. |
| ap | 93 | HAGAN, H.P., et al., "Temporal behaviour of nanofeatures on Au," Ultramicroscopy, 42-44 (1992), pp. 587-593. |



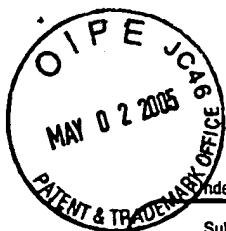
| OTHER DOCUMENTS (Include author (if any), title, publisher and place of publication, date and pertinent pages) | | |
|--|--|----|
| 94 | MAJUMDAR, A., ET AL., "Nanometer-scale lithography using the atomic force microscope," Appl. Phys. Lett., Vol. 61, No. 19, 9 November 1992, pp. 2293-2295. | ap |
| 95 | MAMIN, H.J. and RUGER, D., "Thermomechanical writing with an atomic force microscope tip," App. Phys. Lett., Vol. 61, No. 8, 24 August 1992, pp. 1003-1005. | |
| 96 | MAMIN, H.J., ET AL., "High Density data storage using proximal probe techniques," The IBM Journal of Research and Development, Vol. 39, No. 6, November 1995, pp. 681-699. | |
| 97 | MANALIS, S., ET AL., "Submicron studies of recording media using thin-film magnetic scanning probes," Applied Physics Letters, Vol. 66, No. 19, 8 May 1995, pp. 2585-2587. | |
| 98 | TERRIS, B.D., ET AL., "Atomic force microscope-base data storage: track servo and wear study," Applied Physics A Vol. 66, pp. S809-S813 (1998), (IBM Almaden Research Center, presented STM 97). | |
| 99 | UESUGI, K. and YAO, T., "Nanometer-scale fabrication on graphite surfaces by scanning tunneling microscopy," Ultramicroscopy, 42-44 (1992), pp. 1443-1445. | |
| 100 | PCT Written Opinion mailed December 18, 2000, International Application No. PCT/US99/30326, filed December 20, 1999 | |
| 101 | T.C. SHEN ET AL; Ion irradiation effects on graphite with the scanning tunneling microscope; J.Vac.Sci. Technol. B9(2), Mar/Apr 1991; pp.1376-1379 | |
| 102 | U. STAUFER ET AL; Tailoring nanostructures with a scanning tunneling microscope; J.Vac.Sci. Technol. B9(2), Mar/Apr 1991; pp.1389-1393 | |
| 103 | H.J. MAMIN; Gold deposition from a scanning tunneling microscope tip,, et al.; J.Vac.Sci. Technol B9(2), Mar/Apr 1991; pp.1398-1402 | |
| 104 | J.A. DAGATA, ET AL. Pattern generation on semiconductor surfaces by a scanning tunneling microscope operating in air;; J.Vac.Sci. Technol. B9(2), Mar/Apr 1991; pp.1384-1388 | |
| 105 | T.R. ALBRECHT, ET AL. Nanometer-scale hole formation on graphite using a scanning tunneling microscope;; Appl.Phys.Lett., Vol.55, No.17, 23 October 1989; pp.1727-1729 | |
| 106 | M.AONO; Has Japan Begun to Move Toward Atomic Level Material Processing?; Science, Vol. 258; 23 October 1992 | ap |
| Examiner <u>Cook Pherry</u> Date Considered <u>1/14/05</u> | | |
| *EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | | |
| *1 = Copy not submitted because it was submitted in prior application SN <u>/</u> , filed <u>20</u> , relied on under 35 USC §120. | | |
| *2 = Copy not submitted because it was submitted in prior application SN <u>/</u> , filed <u>20</u> , relied on under 35 USC §120. | | |

| | | | | | | | |
|---|----|--|------------------|---|----------------------------------|---|-------------|
| Form PTO-1449 (Substitute) | | U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE | | Attorney Docket Number LAZE-01011US1 | | Serial/Parent Number 10/684,883 | |
|  | | | | Applicant/Parent Owner Thomas F. Rust | | | |
| | | | | Filing/Issue Date 10/14/2003 | | Group Art Unit 2655 | |
| U.S. PATENTS | | | | | | | |
| Examiner Initial | | Patent Number | Issue Date | First Named Inventor | Class | Subclass | Filing Date |
| <i>ap</i> | 1 | 5,196,701 | 03/23/1993 | Foster et al. | 250 | 306 | 07/31/1991 |
| | 2 | 5,537,372 | 07/16/1996 | Albrecht et al. | 369 | 043 | 11/24/1993 |
| | 3 | 5,561,300 | 10/01/1996 | Wada et al. | 250 | 492.2 | 12/22/1992 |
| | 4 | 5,679,952 | 10/21/1997 | Lutwyche et al. | 250 | 306 | 05/19/1995 |
| | 5 | 5,801,472 | 09/01/1998 | Wada et al. | 310 | 309 | 08/13/1996 |
| | 6 | 5,856,967 | 01/05/1999 | Mamin et al. | 369 | 126 | 08/27/1997 |
| | 7 | 6,084,849 | 07/04/2000 | Durig et al. | 369 | 126 | 05/20/1996 |
| | 8 | 6,366,340 | 04/02/2002 | Ishibashi et al. | 355 | 069 | 06/05/1998 |
| | 9 | 6,369,400 B2 | 04/09/2002 | Haerberle et al. | 250 | 548 | 10/06/1999 |
| <i>ap</i> | 10 | 6,647,766 B2 | 11/18/2003 | Despont et al. | 073 | 105 | 12/20/2000 |
| U.S. PATENT PUBLICATIONS | | | | | | | |
| Examiner Initial | | Patent Application Publication Number | Publication Date | Applicant | | | |
| <i>ap</i> | 11 | 2002/0101573 A1 | 08/01/2002 | Ishibashi et al. | | | |
| | | | | | | | |
| PENDING U.S. PATENT APPLICATIONS | | | | | | | |
| Examiner Initial | | Application Number | Filing Date | First Named Inventor | Petition to Expunge? Yes No | | |
| | | | | | | | |

Sheet 2 of 2

BEST AVAILABLE COPY

| FOREIGN PATENT DOCUMENTS | | | | | | | | |
|---|------------|-----------------|------------------|-----------------|---------|----------|-------------------------|--|
| Examiner Initial | | Document Number | Publication Date | Country | Class | Subclass | Translation Yes No | |
| ap | 12 | EP 0 788 149 A1 | 06/08/1997 | EPO | H01L | 21/3205 | | |
| ap | 13 | WO 02/37488 A1 | 05/10/2002 | PCT | G11B | 9/00 | | |
| ap | 14 | WO 97/05610 | 02/13/1997 | PCT | G11B | 9/00 | | |
| | | | | | | | | |
| OTHER DOCUMENTS (Include author (if any), title, publisher and place of publication, date and pertinent pages) | | | | | | | | |
| Examiner | Cush Phung | | | Date Considered | 1/14/05 | | | |
| <p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p> | | | | | | | | |
| <p>*1 = Copy not submitted because it was submitted in prior application SN / _____, filed _____, 20____, relied on under 35 USC §120.</p> <p>*2 = Copy not submitted because it was submitted in prior application SN / _____, filed _____, 20____, relied on under 35 USC §120.</p> | | | | | | | | |



PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 1

Complete if Known

| | |
|------------------------|----------------|
| Application Number | 10/684,883 |
| Filing Date | 10/14/2003 |
| First Named Inventor | Thomas F. Rust |
| Art Unit | 2824 |
| Examiner Name | Phung, Anh K. |
| Attorney Docket Number | LAZE-01011US1 |

BEST AVAILABLE COPY

U. S. PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|-----------------------|--------------------------|--|--------------------------------|--|---|
| | | Number-Kind Code ² (if known) | | | |
| ap | | US- 4,340,953 | 07-1982 | Iwamura et al. | 369/126 |
| | | US- 4,831,614 | 05-1989 | Duerig et al. | 369/101 |
| | | US- 4,916,002 | 04-1990 | Carver, Thomas E. | 428/139 |
| | | US- 4,943,719 | 07-1990 | Akamine et al. | 250/306 |
| | | US- 4,968,585 | 11-1990 | Albrecht et al. | 430/320 |
| | | US- 5,095,479 | 03-1992 | Harigaya et al. | 369/288 |
| | | US- 5,329,122 | 07-1994 | Sakai et al. | 250/306 |
| | | US- 5,412,597 | 05-1995 | Miyazaki et al. | 369/126 |
| | | US- 5,471,064 | 11-1995 | Koyanagi et al. | 250/492.2 |
| | | US- 5,606,162 | 02-1997 | Buser et al. | 250/306 |
| | | US- 5,804,710 | 09-1998 | Mamin et al. | 73/105 |
| | | US- 5,808,973 | 09-1998 | Tanaka, Yoichiro | 369/126 |
| | | US- 5,929,438 | 07-1999 | Suzuki et al. | 250/306 |
| | | US- 5,935,339 | 08-1999 | Henderson et al. | 134/1 |
| | | US- 6,001,519 | 12-1999 | Yang et al. | 250/306 |
| | | US- 6,027,951 | 02-2000 | MacDonald et al. | 438/20 |
| | | US- 6,196,061 | 03-2001 | Adderton et al. | 250/492.2 |
| | | US- 6,249,747 | 06-2001 | Binnig et al. | 369/126 |
| ap | | US- 6,339,217 | 01-2002 | Kley, Victor B. | 250/216 |

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear | T ⁴ |
|-----------------------|--------------------------|---|-----------------------------------|--|---|----------------|
| | | Country Code ³ Number ⁴ Kind Code ⁵ (if known) | | | | |
| ap | | WO 00/36608 | 06/22/00 | Thomas F. Rust | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Examiner
Signature

Anh Phung

Date
Considered

8/8/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Attorney Docket No.: LAZE-01011US1
MRobbins/LAZE/1011US1/1011.02.IDS.pdf